CLAIMS

WHAT IS CLAIMED IS:

1. A system for facilitating a broadband telecommunications path, comprising:

a non-broadband guide-wire;

a high bandwidth channel;

a means for correlating a user of the non-broadband guide-wire and a high bandwidth channel;

the non-broadband guide-wire adapted to determine a path for a high bandwidth channel; and

a means for using the non-broadband guide wire to allocate the high bandwidth channel dynamically as user calls are established and terminated.

2. The system of Claim 1, wherein the non-broadband guide wire comprises the public switched telephone network ("PSTN").

3. The system of Claim 2, wherein the PSTN non-broadband guide wire utilizes the SS7 network protocol.

4. The system of Claim 3, wherein the SS7 network is used to set up the high bandwidth channel, utilizing the end points for termination points and traversed switches as guides to set up the most efficient path.

5. The system of Claim 4, adapted to make use of the spare capacity of a SONET or DCS network for setting up and tearing down the high bandwidth channel paths; and

the system adapted to allocate bandwidth dynamically as calls are established and terminated.

6. The system of Claim 1, further comprising:

the system being adapted to first establish a DS0 call;

the system being adapted to query a called party to determine if it is equipped to set up a high bandwidth channel;

the system being adapted to establish a DS0 call if the called party is unable to set up a high bandwidth channel; and

the system being adapted to initiate a high bandwidth channel if a called party is able to support a high bandwidth channel.

7. The system of Claim 6, further comprising a means for allocating the high bandwidth channel comprising:

a database for customers comprising a number of DS1s/VT1.5 granulars unit or bearer channels adapted to be allocated for the broadband call;

a special network manager adapted to query resources along a broadband path;

the special network manager being adapted to coordinate the traversal of network elements that can be remotely provisioned;

the special network manager being adapted to support DS1 or VT1.5 granular unit provisioning;

the database for customers and special network manager being coupled to facilitate the provisioning and tracking of the high bandwidth services.

8. The system of Claim 7, wherein the special network manager is adapted to allocate higher granular units, including STS1 units.

9. The system of Claim 8, wherein the special network manager is adapted to network elements that have spare capacity.

10. The system of Claim 9, wherein the special network manager is adapted to permit the high channel bandwidth can cross LATA and carrier boundaries by passing through gateway network elements.

11. The system of Claim 7, further comprising:

the special network manager being adapted to determine the best path for the high bandwidth channel; and

the special network manager being adapted to reserve the resources necessary to implement the high bandwidth channel.

12. The system of Claim 11, wherein the special network manager is adapted to issue a series of provisioning commands to all of the targeted network elements in order to provision the high bandwidth channels.

13. The system of Claim 12, wherein the special network manager is adapted to issue supervision tones or messages to a user concerning the status of a high bandwidth channel.

14. The system of Claim 13, further comprising the special network manager being located between the SS7 network and the EMS systems of the individual network elements.

15. The system of Claim 14, further comprising the special network manager being adapted to communicate with the EMS network over a standard CORBA interface, or TL1 or SNMP.

16. The system of Claim 1, wherein broadband nodes on the high bandwidth channel comprise HDSL (HDSL2/4) line cards with concentration mechanisms operable to oversubscribe network bandwidth.

17. A system for using a public switched telecommunications network (PSTN) as a guide wire for a broadband network, comprising:

a special network manager being connected to the PSTN and a broadband network;

the special network manager being adapted to use the PSTN to determine the end points for a call; and

the special network manager being adapted to use the PSTN to trigger a broadband network to be setup, torn down, and modified according to predetermined commands.

18. A method for managing a SS7 triggered broadband communication session, comprising:

initiating, by a first termination point, a first communication session processible by an SS7 network to a second termination point, the first communication session indicating a broadband communication session is intended between the first and second termination points;

checking whether the broadband communication session can be established between the first and second termination points;

determining a communication path for the broadband communication session;

provisioning one or more network resources for the broadband communication session through the determined communication path; and

terminating the first communication session upon an initiation of the broadband communication session.

19. The method for managing a SS7 triggered broadband communication session of Claim 18, further comprising using the PSTN network as a guide-wire for the broadband communication session.

20. The method for managing a SS7 triggered broadband communication session of Claim 18 further comprising switching the broadband network at the SONET, ADM and/or DCS level.

21. The method for managing a SS7 triggered broadband communication session of Claim 18 further comprising utilizing a call center to gain information about the end stations and triggers the broadband network via an interface to the SS7 based on provisioned information

22. The method for managing a SS7 triggered broadband communication session of Claim 18 further comprising utilizing a self discovering algorithm whereby a system can determine its self domain broadband network and receive neighboring domain information.

23. The method for managing a SS7 triggered broadband communication session of Claim 22 further comprising identifying a mechanism for utilizing a hierarchical management network to provide wider area and/or global area routing information.

24. The method for managing a SS7 triggered broadband communication session of Claim 18 further comprising utilizing linkages between information stored in the SS7's SCP and the broadband management system.

25. The method for managing a SS7 triggered broadband communication session of Claim 18 utilizing routing algorithms based on the routing concept of advanced intelligent network, broadband network and IP network.

26. The method for managing a SS7 triggered broadband communication session of Claim 25 further comprising:

collecting relevant network data from the SS7 network and broadband network into special routing databases; and based on called and calling subscriber data, finding the shortest routing path in the special routing database between two termination points in the broadband network.